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ISD NEWS & VIEWS

January, 1988

VOL. 5 NO. 12

A PUBLICATION OF THE INFORMATION CENTER BUREAU
MONTANA DEPARTMENT OF ADMINISTRATION
INFORMATION SERVICES DIVISION

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DEADHEAD

NEWS

MVS/370 to MVS/XA Conversion

ISD has outgrown its current MVS/370 operating system on the mainframe and is embarking upon a conversion to the MVS/XA operating system. Software systems, such as VTAM, CICS and IDMS have grown to the point where they have reached the design limits of MVS/370. The migration to MVS/XA is necessary to provide system growth and availability in the future.

The conversion is scheduled to begin in mid-January and is expected to be complete by June 1, 1988. Testing will be performed on weekends and early morning hours. Schedules will be published in advance and every attempt will be made to minimize impact on our user community.

This conversion will not require any changes to production systems, including Job Control Language. For further information, please feel free to contact the Supervisor of Technical Services, Richie Bender at 444-2556.

Term Contract Additions

The Hewlett Packard Laser Jet Series II printer has been added to the term contract for Valcom, TC # 132-H. The printer passed most of the Information Center compatibility testing. The base configuration for the printer costs $1627.17 and comes with 512kb memory. For more information on the results of the compatibility testing call Brett at 444-2973.

The Zenith Z-157 and Z-286 system units have been added to term contract # 130-H. These system units are low cost alternatives to the Z-159 and the Z-241.

Price sheets and additional information are available from the Information Center.

Zenith and ACER 3270 Compatibility Problem

Agencies who plan on purchasing Zenith and ACER equipment should be aware of a compatibility problem with IBM 3270 emulation version 3 and EGA. If 3270 emulation is loaded and a user tries to hot key (ALT-ESC) to their PC session, a ROM conflict between 3270 and EGA causes the system unit to lock up. An auto switchable card from Paradise will keep the system unit from locking up, but this card will not maintain EGA mode and must be ordered separately.

Zenith has recently announced a new Z-449 video adapter that may solve the problem. However, the Information Center Bureau has not yet tested the adapter. Zenith is currently shipping this adapter with all their 80286 and 80386 microprocessors, but not with the 8088 microprocessor.

This was the only compatibility problem the Information Center Bureau found in its evaluations. This problem does not occur with IBM 3270 Entry Level. If you have any questions call Ron at 444-2973.

R:Tools for R:BASE System V

The Information Center recently purchased R:Tools, a collection of R:BASE and DOS utility programs. These programs are useful for creating and maintaining R:BASE databases and applications. R:Tools includes utility programs to do the following:

R:BASE tools
- analyze and fix damaged databases
- undelete rows that were deleted by mistake
- document database structures and application programs
- build keys faster, and analyze whether they are efficient
- on-screen calculator
- and more ...

DOS tools
- backup and restore files (slightly better than DOS)
- rename directories
- search directories for a filename
- search multiple files for a text string
- replace text strings in multiple files
- merge or split files
- and more ...

If you are interested in getting a demo of R:Tools, contact Randy at the Information Center at 444-2973.

Graphics Services Offered

The Information Center is now offering graphics creation and plotting as a service to agencies. We can create anything from standard business charts to diagrams, drawings, symbols, maps, forms, and logos. Data can be graphed from 1-2-3 and Symphony spreadsheets or dBASE files. We can edit, enhance, or combine charts created by 1-2-3, Symphony, and Graphwriter.

Graphics can then be printed on our IBM color plotter. Currently we are printing on 8½ X 11 paper. Larger paper will be available in the future. Paper stock will include regular white and various colored paper, plotter paper (provides better resolution), and transparencies. Some of the pen colors

available for use are black, brown, green, purple, blue, red, and orange.

The cost for creating a graph will be $20.00 per hour. If you have Freelance but not a color plotter, the Information Center will plot your graph for $5.00 per graph. If you have any questions or a graph you would like to talk to us about, please call Jeanette or Sandi at 444-2973.

Graphics Software Update

When testing micro graphics packages a couple years ago, we noticed that it was like trying to shoot a moving target. The vendors play a leapfrog game, with enough features added by successive vendors to catch the leader and jump just a little ahead. This has happened with Freelance Plus. The current Software Digest ratings of graphics packages show Freelance is now rated 5th. Harvard Graphics, which was rated first last year (Freelance Plus was second) is still first, but 3 others have also passed Freelance.

Harvard Graphics was not initially tested because it was not available until after our testing was complete. We are now planning to acquire and test Harvard Graphics as soon as possible. For more information call Gary Wulf at the Information Center at 444-2973.

WordPerfect Exchange Program

The Information Center is wrapping up the WordPerfect Exchange Program for those agencies converting from other word processing packages to WordPerfect. We need to get a final count of packages that still need to be exchanged.

If anyone finds themselves with a word processing package that needs to be exchanged, please call Melanie Coughlin at 444-2859.

Personal Services/PC - Version 1.3

IBM is now shipping Personal Services/PC Version 1.3. The Information Center has not done adequate testing to insure compatibility with other software packages. If you plan to install this version or have any questions, please call Jeanette at 444-2973.

IBM PC 3270 Emulation Program - Version 3.00

The latest maintenance version of IBM's PC 3270 Emulation Program Version 3.00 is 3.02. IBM will ship this maintenance version with any package ordered. The Information Center is recommending that you do not use this version. It can create serious central mainframe problems. If you plan to install this

version or have any questions, please call Ron or Jeanette at 444-2973.

IBM PC Local Area Network Program - Maintenance Release 1.23

IBM has a maintenance release for PC LAN program 1.2. The maintenance release is 1.23 and is suppose to correct print spool problems. If you are having print spool problems and would like a copy of the new release, bring a diskette to the Information Center. There is no charge for the upgrade.

Caution: Fire Extinguishers May Cause More Damage!

If you have personal computers or equipment containing sensitive electronics components (terminals, copiers, typewriters, etc.) in your work area, look at the extinguisher(s) which you would use in the event of a fire. Chances are that they are either a water or dry-chemical extinguisher -- a potential disaster waiting to happen.

It has been determined that the chemicals used in a dry-chemical fire extinguisher will significantly damage a personal computer. The chemicals are corrosive to sensitive electronic components.

Halon should be the fire-suppressing agent of choice for fire extinguisher which may be used in areas containing sensitive electronic components. It is safe to breathe and a non-corrosive.

While you are thinking about it, you might want to consider the probability of the same problem occurring in your own home (TV sets, stereo, microwave oven, VCR, home computer, etc.)

Warning to Scanner Users

The rapidly growing technology that allows printed text to be scanned and input into a computer opens the door to a potentially dangerous activity. Magazines and books are full of useful articles that can be easily scanned and reproduced for training purposes or inclusion in publications. If this is done without the permission of the original publisher, U.S. copyright laws have been violated. The ease with which the copyright law can be inadvertently violated by using a scanner means that scanner users must be always careful when using scanned documents. Whenever a document is scanned into a computer, be sure to include the copyright information as part of that document. This will insure that anyone else having access to the computer will know that the document is protected under the copyright laws.

If you have any questions concerning the use of scanners, you can call the Information Center at 444-2973. Any questions regarding the copyright laws should be directed to your legal counsel.

TRAINING

Free Microcomputer Mini Seminars

LOTUS 1-2-3 STRING FUNCTIONS

Feb 26, 1988 10:00 am to 12:00 noon Room 25, Mitchell

This demonstration will describe the string handling functions available in Lotus 1-2-3. They are divided into five categories:

String Comparisons
String Cutting
String Changes
String Conversions
Miscellaneous string functions

A few of the demonstrations include changing a number into a string so that it can be centered or left aligned (such as in a heading), changing all of the letters in a string to upper case or lower case, and displaying only a portion of a larger string.

USING THE DOS LINE EDITOR (EDLIN)

Feb 26, 1988 8:30 am to 9:30 am Room 25, Mitchell

This mini will cover using EDLIN to write and edit DOS batch files. Listing contents of batch files, inserting, deleting and moving lines, saving and quitting files will be included.

Free Mainframe Mini Seminars

JOB CLASSES AND SYSOUT ROUTING

Feb 19, 1988 1:30 pm to 2:30 pm Room 25, Mitchell

This mini will cover using appropriate job classes and sysout statements in your JCL. Output classes and output routing will be covered, as will routing to multiple devices.

HOW TO DO MICRO-MAINFRAME TRANSFERS

Feb 19, 1988 3:00 pm to 4:30 pm Room 25, Mitchell

This short mini will cover use of PANLINK and the 3270 Emulation Program to transfer data between the mainframe and a microcomputer.

To register for the free Mini Seminars, call Becky at 444-2973.

TRAINING SCHEDULE

STATE DATA NETWORK CLASSES

INTRODUCTION TO IDMS DATABASE PROGRAMMING: presented by DBMS INC.

DATE:	January 18 through January 22, 1988
TIME:	8:30 a.m. to 5:00 p.m.
PLACE:	Yellowstone Room, DNRC Building
COST:	$250.00 (includes manuals)
LIMIT:	20
PREREQUISITE:	Understanding of COBOL or PL/I programming language

INTRODUCTION to IDMS DATABASE PROGRAMMING is intended as the foundation for all other IDMS-related education. A clear and concise explanation of database constructs (ie elements, records, sets and areas) are covered in detail. The database concepts will be coupled with the Data Manipulation Language (DML) for a thorough examination of navigation strategies, currency, concurrent update and recovery, integrated indexing, and programming with Logical Record Facility (LRF). This class will provide application developers responsible for writing or maintaining IDMS programs with a solid understanding of IDMS concepts.

BASIC TERMINAL SKILLS: presented by Wendy Wheeler and Jeanette Rushford of the Information Center

DATE:	Mar 21, 1988
TIME:	8:30 am to 4:00 pm
PLACE:	Room 25, Mitchell Building
COST:	$50.00
LIMIT:	8
PREREQUISITE:	3270nd (interactive class on terminal operation)

BASIC TERMINAL SKILLS is a hands-on workshop to provide experience using computer terminals and the SPF editor. The SPF editor is an easy-to-learn menu used to enter data and programs into the State of Montana central computer system. Entering data, changing data and submitting programs for execution are covered in detail. Also covered are SPF's utility functions and how to track job output.

This course is essential for state government personnel using terminals tied into the State of Montana central computer. This course is a prerequisite for many other ISD classes.

INTRODUCTION TO SAS:	presented by Gary Wulf of the Information Center
DATE:	Mar 23 and Mar 24, 1988
TIME:	8:30 to 4:00 (two hours for lunch each day)
PLACE:	Room 25, Mitchell Building
COST:	$100.00 - $150.00
LIMIT:	10
PREREQUISITE:	Basic Terminal Skills or equivalent. Some knowledge of JCL

Although SAS stands for Statistical Analysis System, it is a very powerful general purpose tool for capturing, editing, and reporting data. In just a few minutes, one can design and program a full screen data entry application for a terminal. Reports and statistical procedures can be coded to summarize and print the information entered.

This course is intended to teach the basics of SAS as a general tool. Throughout the class period, students will develop and program a variety of SAS features. The class does not attempt to teach statistics and prior knowledge of statistics is not necessary.

Before taking this class you must know enough JCL to do the following:

a. Code JOB and EXEC statements
b. Code a DD statement for a new disk dataset
c. Allocate a dataset to a TSO session using the TSO ALLOCATE command
d. Change SYSOUT classes
e. In addition to the JCL knowledge, you must have a TSO signon ID and TSO library, an ISD billing number, and familiarity with SPF (covered in Basic Terminal Skills)

If you do not have this knowledge, a special half-day JCL course will be held on March 22, 1988 from 1:00 pm to 4:00 pm. (The class charge for this option is $150.00.) Please contact Gary Wulf at 444-2555 if you have any questions on your abilities.

PERSONAL MANAGER (PM): presented by Jeanette Rushford of the Information Center

DATE:	Feb 2, 1988
TIME:	1:30 pm to 3:30 pm
PLACE:	Room 25, Mitchell Building
COST:	$25.00
LIMIT:	10
PREREQUISITE:	Beginning Microcomputer Skills or Basic Terminal Skills

Personal Manager is a calendaring product available through the Division's mainframe. It is used for scheduling meetings (for yourself and others), vacations, reserving resources like conference rooms, and even taking telephone messages.

USING PERSONAL SERVICES/PC (PS/PC): presented by Jeanette Rushford of the Information Center

DATE:	Feb 4, 1988
TIME:	1:30 am to 4:30 pm
PLACE:	Room 25, Mitchell Building
COST:	$35.00
LIMIT:	10
PREREQUISITE:	Beginning Microcomputer Skills and experience with either WordPerfect or Displaywrite3

PS/PC allows you to electronically send and receive messages or files. A document created by either WordPerfect or Displaywrite3 can be distributed to any other person also using PS/PC by going through DISOSS on the state's mainframe.

To use PS/PC you must have the Personal Services/PC software, the IBM PC 3270 Emulation Program and adapter, and a coaxial cable or phone line connecting your PC to the mainframe.

MICROCOMPUTER CLASSES

BEGINNING MICROCOMPUTER SKILLS: presented by the staff of the Information Center

DATE: (one day only)	Feb 8, 1988 Feb 29, 1988
TIME:	8:30 a.m. to 4:30 p.m.
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$60.00
SUBSCRIBER COST:	$40.00
LIMIT:	10
PREREQUISITE:	None

This course will give participants brief hands-on experience with microcomputers. Topics to be covered:

- The machine
- The operating system
- Word processing
- Spreadsheets and graphics
- File management

All class time will be spent using microcomputers and software. The participant will learn what microcomputers can do and how to approach them with a positive attitude. This course or its equivalent is a prerequisite for other microcomputer courses.

FUNDAMENTALS OF DOS: presented by Gale Kramlick of the Information Center

DATE:	Feb 5, 1988
TIME:	8:30 am to 4:30 pm
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$60.00
SUBSCRIBER COST:	$40.00
LIMIT:	10
PREREQUISITE:	Beginning Micro Skills and/or 3 months micro experience

FUNDAMENTALS OF DOS is intended for microcomputer users who need to know more about controlling their microcomputer through its operating system. Programming experience is NOT required.

Topics to be covered include:

- What is DOS? Why is it necessary to know about it?
- DOS names for peripherals
- File naming
- Special files like CONFIG.SYS
- Internal commands - DIR, ERASE, RENAME, TYPE, COPY and their variations
- External commands - FORMAT, SYS, DISKCOPY, CHKDSK, MODE
- How to interpret batch files
- Backup procedures

INTERMEDIATE DOS: presented by Gale Kramlick or Brett McAlister of the Information Center

DATE:	Feb 25, 1988
TIME:	8:30 am to 4:30 pm
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$60.00
SUBSCRIBER COST:	$40.00
LIMIT:	10
PREREQUISITE:	Fundamentals of DOS or appropriate experience

This class is designed to follow the Information Center's "Fundamentals of DOS" class. It is not designed for programmers and does not intend to teach all the advanced features of the operating system.

The topics that are covered in "Intermediate DOS" are:

ATTRIB	MODE
DISKCOMP	SELECT
REPLACE	LABEL
JOIN	XCOPY

Other features of the Disk Operating System that will be discussed are:

Filters (FIND, MORE)
Batch File Creation (EDLIN, Batch file commands)

If you have any questions, please contact Brett McAlister at 444-2044.

WORD PROCESSING CLASSES

INTRODUCTION TO WORDPERFECT: presented by Melanie Coughlin or Gale Kramlick of the Information Center

DATE:	Jan 21 and Jan 22, 1988 Mar 1 and Mar 2, 1988
TIME:	8:30 am to 3:30 pm on **Jan 21** 8:30 am to noon **Jan 22** 8:30 am to 3:30 pm on **Mar 1** 1:00 pm to 4:30 pm on **Mar 2**
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$90.00
SUBSCRIBER COST:	$60.00
LIMIT:	10
PREREQUISITE:	Beginning Microcomputer Skills

This course is intended for anyone interested in learning the basics of WordPerfect. This class will concentrate on text creation, use of function keys, editing, formatting, printing, filing, and retrieving documents. Merging documents, macro creation, block functions and use of the spell checker are also covered.

ADVANCED FEATURES OF WORDPERFECT: presented by Melanie Coughlin of the Information Center

DATE:	Feb 1 and Feb 2, 1988
TIME:	8:30 am to 3:30 pm on Feb 1 8:30 am to 12:00 noon on Feb 2
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$90.00
SUBSCRIBER COST:	$60.00
LIMIT:	10
PREREQUISITE:	Beginning Microcomputer Skills and Introduction to WordPerfect

For those already using WordPerfect, the advanced class will cover footnotes, column generation, document preview, advanced macros, advanced merging, and outlining. Math functions, sorting capabilities and dual document editing are also covered.

SPREADSHEET CLASSES

INTRODUCTION TO LOTUS 1-2-3: presented by Gale Kramlick or Wendy Wheeler of the Information Center

DATE:	Jan 25 and Jan 26, 1988 Feb 11 and Feb 12, 1988 Mar 3 and Mar 4, 1988
TIME:	8:30 am to 3:30 pm on the first day 8:30 am to 12:00 noon the second day
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$90.00
SUBSCRIBER COST:	$60.00
LIMIT:	10
PREREQUISITE:	Beginning Microcomputer Skills

This course is designed for anyone with little or no previous 1-2-3 or microcomputing experience.

INTRODUCTION TO LOTUS 1-2-3 will concentrate on 1-2-3 spreadsheet creation and editing. Building formulas, using functions, formatting information, the 1-2-3 command structure and the creation of graphics is covered. Printing spreadsheets and graphs is also included. The more advanced features such as macro programming and database commands are covered in other classes.

Class format consists of lecture and hands-on practice followed by lab time on actual agency spreadsheets for further experience.

ADVANCED FEATURES OF LOTUS 1-2-3: presented by Brett McAlister of the Information Center

DATE:	Feb 3 and Feb 4, 1988 Mar 16 and Mar 17, 1988
TIME:	8:30 am to 4:30 pm on Feb 3 8:30 am to 12 noon on Feb 4 1:30 pm to 4:30 pm on Mar 16 8:30 am to 4:30 pm on Mar 17
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$90.00
SUBSCRIBER COST:	$60.00
LIMIT:	10
PREREQUISITE:	Introduction to Lotus 1-2-3 and Beginning Microcomputer Skills

This course is designed for anyone who is using 1-2-3 for basic spreadsheet work. Features not covered in the introductory class will be included (ex: protection status, range names, combining

files, etc). Advanced features such as one and two-way sensitivity analysis tables and using functions will be covered in detail.

Class consists of lecture, hands-on practice, and lab work or question and answer period if time permits.

INTRODUCTION TO MACROS WITH LOTUS 1-2-3: presented by Brett McAlister of the Information Center

DATE:	Feb 18, 1988
TIME:	8:30 am to 12:00 noon
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$35.00
SUBSCRIBER COST:	$20.00
LIMIT:	12
PREREQUISITE:	Beginning Microcomputer Skills and Intro to Lotus 1-2-3

This class is designed for the regular Lotus 1-2-3 user who wants to include the power of Lotus 1-2-3 Macros in their spreadsheets. Subjects covered are: naming the macro, the \0 macro, entering the macro into the spreadsheet, invoking the macro, how to include special keys (ie. function keys, arrow keys, home key, escape key, etc) in the macro, and macro documentation. Also covered will be how to make the macro interact with the operator and simple decision making.

****

TWO NEW CLASSES!

****

INTERMEDIATE MACROS WITH LOTUS 1-2-3: presented by Brett McAlister of the Information Center

DATE:	Feb 18, 1988
TIME:	1:00 pm to 4:30 pm
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$35.00
SUBSCRIBER COST:	$20.00
LIMIT:	12
PREREQUISITE:	Beginning Microcomputer Skills and Intro to Lotus 1-2-3 and an understanding of keystroke automating macros (as covered in Intro to Macros with Lotus 1-2-3)

This class is designed for the person who has mastered the concepts presented in Intro to Macros. The primary emphasis in this class is the use of branches and loops to increase the power of the macro. In addition subroutines will be covered as well as the {DEFINE} AND {DISPATCH} commands. More advanced decision making routines will also be presented.

ADVANCED MACROS WITH LOTUS 1-2-3: presented by Brett McAlister of the Information Center

DATE:	Feb 19, 1988
TIME:	8:30 am to 12:00 noon
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$35.00
SUBSCRIBER COST:	$20.00
LIMIT:	12
PREREQUISITE:	Beginning Microcomputer Skills, Intro to Lotus 1-2-3, an understanding of keystroke automating macros (as covered in Intro to Macros with Lotus 1-2-3)

This class is designed for the Lotus 1-2-3 POWER user who designs spreadsheets for others to use. Covered in this class are those aspects of Lotus 1-2-3 and macros that affect the way the spreadsheet is presented to the user. Items such as custom menus, {BEEP}, {PANELOFF}, {PANELON}, {WINDOWSOFF}, {WINDOWSON}, {RECALC}, {BREAKOFF}, and {BREAKON} will be presented.

SPREADSHEET DESIGN AND DOCUMENTATION: presented by Brett McAlister of the Information Center

DATE:	Mar 10, 1988
TIME:	8:30 am to 4:30 pm
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$60.00
SUBSCRIBER COST:	$40.00
LIMIT:	10
PREREQUISITE:	Introduction to Lotus 1-2-3

This class will emphasize the importance, effectiveness and the organizational benefits of good spreadsheet design and documentation. The Lotus 1-2-3 spreadsheet program will be used to demonstrate good and bad techniques. Some methods to track down common mistakes and logic problems will be covered.

Students should have previous spreadsheet experience. A general knowledge spreadsheet applications and concepts is required. Minimum requirements can be met by completing the "Introduction to Lotus 1-2-3" class. Students are not required to be 1-2-3 users, however, if this is the case, or if you are not sure if you meet the minimum requirements, please call Brett at 444-2924.

GRAPHICS CLASS

FREELANCE: presented by Gale Kramlick of the Information Center

DATE:	Feb 17, 1988
TIME:	8:30 am to 4:30 pm
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$60.00
SUBSCRIBER COST:	$40.00
LIMIT:	10
PREREQUISITE:	Beginning Microcomputer Skills

This class will give participants hands-on experience using Freelance to create and enhance business graphs with Freelance's extensive freehand capabilities; importing data from Lotus 1-2-3 to create graphs and importing Lotus graphs into Freelance for enhancement.

Time permitting, a lab session will be available for student practice.

DATABASE CLASSES

MICRO DATABASE CONCEPTS AND DESIGN: presented by Randy Holm of the Information Center

DATE:	Feb 22, 1988
TIME:	8:30 am to 4:30 pm
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$60.00
SUBSCRIBER COST:	$40.00
LIMIT:	10
PREREQUISITE:	Beginning Microcomputer Skills

This class is designed to give participants a primary understanding of what a relational database is and how it compares to other products like Lotus 1-2-3 and PFS:Professional File. The class teaches database design techniques and is a prerequisite for other database classes offered by the Information Center.

BEGINNING R:BASE SYSTEM V: presented by Brett McAlister of the Information Center

DATE:	Feb 23 and Feb 24, 1988
TIME:	8:30 am to 4:30 pm each day
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$120.00
SUBSCRIBER COST:	$80.00
LIMIT:	12
PREREQUISITE:	Beginning Microcomputer Skills and Micro Database Concepts and Design

This class will give participants hands-on experience creating a database and developing a simple application with R:Base System V. The application will include database updates, queries, and simple forms and reports generation. "Prompt by Example" and "Express" will be used.

COMMUNICATIONS & NETWORKING CLASSES

TELEPHONE STATION USER TRAINING: presented by LaVelle Brannin of the Telecommunications Bureau

DATE:	Feb 10, 1988 Mar 2, 1988
TIME:	1:30 pm to 2:30 pm on Feb 10 8:30 am to 9:30 am on Mar 2
PLACE:	Room 25, Mitchell Building
COST:	FREE
LIMIT:	10
PREREQUISITE:	none

This class is designed to familiarize new employees or refresh current employees with the features and use of the state telephone system. Also discussed will be the different calling capabilities available and the dialing plan. This is an interactive class combining demonstrations and hands on usage of the features and the dialing plan.

USING THE IBM TOKEN RING NETWORK: presented by Ron Heilman of the Information Center

DATE:	Mar 9, 1988
TIME:	8:30 am to 4:30 pm
PLACE:	Room 25, Mitchell Building
NON-SUBSCRIBER COST:	$60.00
SUBSCRIBER COST:	$40.00
LIMIT:	10
PREREQUISITE:	Beginning Micro Skills and Token Ring user

This class is for those <u>using</u> the Token Ring to share access to programs, files and printers. The main topics to be covered are:

- Introduction to basic network concepts and terminology
- Advantages and disadvantages to networking
- What is a Token Ring Network and how does it work?
- How to perform common network tasks using the network menus (ex: messaging, cancelling print jobs, etc.)
- Simple problem and error determination
- Sharing files and programs with the network
- Some network management considerations

<u>NOTE:</u> This class is <u>not</u> intended for network system administrators or network programming staff. Contact Ron Heilman at 444-2924 if you have any questions.

COMPUTER BASED TRAINING

The following free tutorials are available in the Computer Based Training Lab located in Room 24 of the Mitchell Building. The tutorials are either diskette or video-based. All are designed for individual study and self-pacing. Tutorials available in the CBT lab include:

- Using Displaywrite 3
- Disk Operating System (DOS)
- Intro to Lotus 1-2-3
- Macro Programming & Advanced Lotus 1-2-3
- Typing Instructor
- Teach Yourself WordPerfect
- The Instructor (microcomputer systems)
- Turbo Pascal Tutor
- Beginning R:Base System V
- Introduction to DisplayWrite4
- Advanced DisplayWrite4
- Using DBase III and DBase III+

Call Becky in the Information Center at 444-2974 to reserve time in the lab or to check out the tutorials to run on your own machine.

700 copies of this public document were printed at a cost of $350.00. Distribution costs are $16.00
Editor: **Jeanette Rushford**

ISD CLASS ENROLLMENT APPLICATION
COMPLETE THIS APPLICATION **IN FULL** AND
RETURN IT TO THE INFORMATION CENTER BUREAU
PRIOR TO THE FIRST DAY OF CLASS

COURSE DATA

Course Requested: _____

Date Offered: _____

STUDENT DATA

Name: _____

Soc Sec Nbr (for P/P/P): _____

Agency & Division: _____

Mailing Address: _____

_____

Phone: _____

How have you met the required prerequisites for this course? Explain giving the class(es) taken, Information Center tutorial(s) completed, and/or experience.

_____

_____

BILLING INFORMATION/AUTHORIZATION

Are you an ISD subscribing agency: _____

ISD Billing Number (5 digits): _____

Authorized Signature: _____

FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS CANCELLATIONS ARE MADE THREE DAYS BEFORE THE DATE FOR EACH CLASS.

DEPARTMENT OF ADMINISTRATION
INFORMATION SERVICES DIVISION
INFORMATION CENTER BUREAU
RM 24, MITCHELL BLDG
HELENA, MT 59620